

# Series AXS-600 / AXF-600 / AXP-600

600 W Power Resistor at 125°C bottom case, different terminal options available

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Due to our Non-Inductive design, the AXS, AXF, AXP series is ideally suited for high-frequency and pulse-loading applications. Through direct mounting on a heat sink, significant cost advantage can be realized. Main applications are: variable speed drives, power supplies, control devices, telecommunications, robotics, motor controls and other switching devices.

#### **Features**

- Multiple resistors in 1 package
- Different terminal options available
- Non-Inductive design
- ROHS compliant
- Materials in accordance with UL 94 V-0
- General pulse load information (ask for details)
- Resistor is also available with preapplied PCM (Phase Change Material) (ask for details)



### **Technical Specifications**

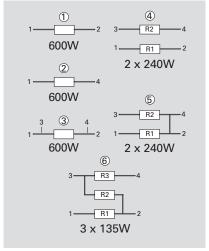
Resistance value	$0.15~\Omega \le 5~K\Omega$ (higher values on special request)
Resistance tolerance	$\pm 5$ % to 10 % (configuration 4,5,6 only tolerance $\pm 10\%$ possible)
Temperature coefficient	> 1R: ±250 ppm/°C (at +85°C ref. to +25°C) lower TCR on special request for limited ohmic values
Power rating	up to 600 W at 125°C bottom case temperature (see configurations)
Short time overload	1.25x rated power at 85°C bottom case temperature for 10 sec., $\Delta R = 0.4\%$ max. (for conf. 1, 2 and 3)
Maximum working voltage	1,000 V DC (higher on request)
Voltage proof	dielectric strength up to 4,000 V DC against ground
Insulation resistance	> 10 GΩ at 1,000 V DC
Isolation voltage betweeen R1 & R2 & R3	500 V DC (1,000 V DC on special request)
Protection class	acc. to IEC 950/CSA22.2 950/M-89 and EN 60950.88:2
Comparative Tracking Index (CTI)	standard 600 V
Heat resistance to cooling plate	Rth ≤ 0.083 K/W
Capacitance/mass	25 pF (typical), measuring frequency 10 kHz (depending on type/connection option, ask for details)
Serial inductivity	50 nH (typical), measuring frequency 10 kHz (depending on type/connection option, ask for details)
Working temperature range	-55°C to +155°C
Mounting - torque for base plate (static)	1.3 Nm to 1.5 Nm M4 screws
Mounting - torque for contacts (static)	1.1 Nm to 1.3 Nm M4 screws, screw-in depth max. 5mm
Standard cable length (AXP-600)	100 mm (other lengths on special request)
Standard cable type (AXP-600)	4GKW-AX 1800V
Weight	~16 g

#### How to make a request

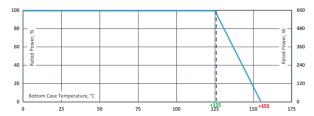
AXS-600-Configuration\_Ohmic Value\_ Tolerance AXF-600-Configuration\_Ohmic Value\_ Tolerance AXP-600-Configuration\_Ohmic Value\_ Tolerance

For example: AXS-600 27R 10% or AXP-600 2x220R 5%

#### Configurations (P / package)



Version 5: ohmic value between contact 2 and 4 =  $3 m \Omega$ 



Derating (thermal resist.) AXS-600: 12.05 W/K ( $\leq$  0.083 K/W) (for conf. 1, 2 and 3)

Best results can be reached by using a thermal transfer compound with a heat conductivity of at least 2.9 W/mK. The flatness of the cooling plate must be better than 0.05 mm overall. Surface roughness should not exceed 6.4  $\mu$ m.



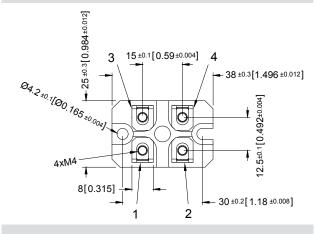
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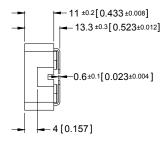
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### **AXS-600 (screw connection)**

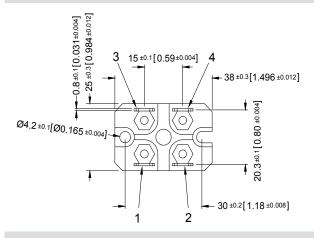
dimensions in mm [inches]

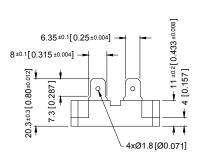




#### **AXF-600 (fast-on connection)**

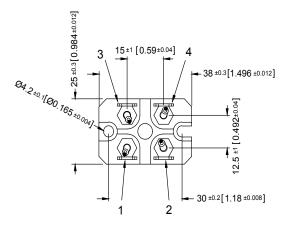
dimensions in mm [inches]

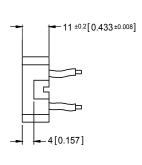




## **AXP-600** dimensions in mm [inches]

(Terminal standard length = 100mm, others on special request)





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